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FEE TRANSMITTAL For FY 2006

Effective 12/08/2004. Fee pursuant to the Consolidated Appropriations Act. 2005 (H.R. 4818).

Complete if known

Application Number	10/034,012
Filing Date	12/20/2001
First Named Inventor	Benjamin J. Parker et al
Examiner Name	Kristie D. Shingles
Art Unit	2141
Attorney Docket No.	1805(15817)

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

(\$ 500.00)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account: Deposit Acct. Number: 21-0765 Deposit Acct. Name: Sprint Communications Company L.P.

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below

☐ Credit any overpayments

☒ Charge any additional fee(s) or any underpayment of fee(s)
under 37 CFR 1.16 and 1.17

☐ Charge fee(s) indicated below, **except the filing fee** to the
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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims - 20 or HP = Extra Claims x Fee (\$) = Fee Paid (\$)

HP = highest number of total claims paid for, if greater than 20

Multiple Dependent Claims
Fee (\$) Fee Paid (\$)

Indep. Claims - 3 or HP = Extra Claims x Fee (\$) = Fee Paid (\$)

HP = highest number of total claims paid for, if greater than 3

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets - 100 = Extra Sheets / 50 = Number of each additional 50 or fraction thereof (round up to a whole number) x Fee (\$) = Fee Paid (\$)

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other: 1402 - \$500.00

SUBMITTED BY

(Complete (if applicable))

Name (Print/Type)	Mark L. Mollon	Registration No. (Attorney/Agent)	31,123	Telephone	(734) 542-0900
Signature	<i>Mark L. Mollon</i>			Date	November 21, 2006

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PATENT

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I hereby certify that this document is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date set forth below.

Renee D. East

Date of signature and deposit - November 21, 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
Benjamin J. Parker et al)	Group Art Unit: 2141
)	
Serial No.: 10/034,012)	Confirmation No.: 1871
)	
Filed: 12/20/2001)	Examiner: Kristie D. Shingles
)	
For: Configuring Computer Network)	Attorney Docket: 1805(15817)
Communications In Response To)	
Detected Firewalls)	

APPELLANT'S BRIEF ON APPEAL

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal from the final rejection of the Examiner dated August 12, 2005, rejecting claims 1, 3-12, 14, 15, and 17.

REAL PARTY IN INTEREST

The real party in interest in the present appeal is Sprint Communications Company L.P., assignee of the entire right, title, and interest in the present application.

11/27/2006 SSESHE1 00000062 210765 10034012
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RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences known to appellant, the appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

STATUS OF CLAIMS

The status of the claims is as follows:

Claims allowed: none.

Claims objected to: none.

Claims rejected: 1, 3-12, 14, 15, and 17.

Claims withdrawn: none.

The claims being appealed are: 1, 5, 8, 12, and 15.

STATUS OF AMENDMENTS

The request for reconsideration after final that was filed September 20, 2005, did not amend the claims. The claim amendments of the previous amendment filed February 24, 2005, were entered.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention relates to establishing a communication session (such as a video telephony call) between users connected to a computer network, and more specifically, to detecting the presence of firewalls connecting each user to the network and configuring the communication session so that network packets can be exchanged through whatever firewalls are present. A central server in the network allows two or

more individual users to establish interactive connection sessions over the Internet without requiring overt knowledge of the other's IP address and without complicated configurations or set-ups. A calling user sends a request to the central server to establish a connection with a called user who has registered with the central server. The central server can either relay all network message packets between the users for the duration of a "call", or it may provide the IP addresses to the users so that they can exchange packets directly. Instituting a direct connection, however, may be impeded if the existing sessions include any firewalls. The invention detects the presence of a NAT firewall at the called user and if one is present but no NAT firewall is present at the calling user, then the roles of the parties' computers are dynamically reversed for establishing the network session between the two computers.

Claim 1 recites a method of connecting at least two users to exchange network packets via an internetwork (e.g., Users #1 and #2 in Figures 1 and 6), each user being addressable within the internetwork at a respective global address (page 2, lines 14-21). Some users of the internetwork are connected to the internetwork via a respective network address translation (NAT) firewall (page 3, lines 13-28). The method comprises the step of maintaining in a central server 13 coupled to the internetwork a database of registered users, the database including respective global addresses corresponding to the registered users (page 7, lines 18-29). A call request is received from a calling user to establish a connection to exchange network packets with a called user, at least the called user being a registered user (page 8, lines 3-10, and steps 28-30 in Figure 3). It is detected whether a respective NAT firewall is in place between the called user and the internetwork (page 12, lines 1-3; page 12, line 25 to page 13, line 8; and step 50 in Figure 7). If a respective NAT firewall is not in place between the called user and the internetwork, then the called user's respective global address is transmitted to the calling user (page 12, lines 3-5 and step 51 in Figure 7), and the calling user establishes a network session for the connection with the called user by transmitting to the called user's respective global address (page 12, lines 5-7 and step 52 in Figure 7). If a respective

NAT firewall is in place between the called user and the internetwork, then it is detected whether a respective NAT firewall is in place between the calling user and the internetwork (page 12, lines 10-11 and step 53 in Figure 7). If a respective NAT firewall is not in place between the calling user and the internetwork, then the calling user's respective global address is transmitted to the called user (page 12, lines 11-12 and step 54 in Figure 7), and the called user establishes a network session for the connection with the calling user by transmitting to the calling user's respective global address (page 12, lines 12-14 and step 55 in Figure 7).

Claim 5 depends from claim 4 and recites that the presence of a NAT firewall is detected after receiving respective activation messages, and that a database stores data indicating whether the respective NAT firewall is detected for each respective active user or not (page 7, line 22 to page 8, line 2; and Figure 8).

Claim 8 depends from claim 1 and recites that the respective NAT firewalls translate between a respective global address of a respective user and a respective local equipment address of the respective user, wherein each of the activation messages includes a respective local equipment address for a respective user (page 12, lines 23-25 and Figure 8). The firewall detecting step is comprised of comparing the respective global address and the respective local equipment address (page 12, lines 28-29), a NAT firewall being detected when the respective global address and the respective local equipment address do not match (page 13, lines 1-3).

Independent claim 12 recites a central server (13) coupled to an internetwork providing a real-time, network interconnection service for enabling at least two users to exchange network packets via said internetwork (e.g., Users #1 and #2 in Figures 1 and 6). Each user is addressable within the internetwork at a respective global address (page 2, lines 14-21), and some users of the internetwork are connected to the internetwork via a respective network address translation (NAT) firewall (page 3, lines 13-28). The central server (13) comprises a programming sequence for maintaining a database of registered users, the database including respective global addresses corresponding to the

registered users (page 7, lines 18-29). A call request is received from a calling user to establish a connection to exchange network packets with a called user, at least the called user being a registered user (page 8, lines 3-10, and steps 28-30 in Figure 3). It is detected whether a respective NAT firewall is in place between the called user and the internetwork (page 12, lines 1-3; page 12, line 25 to page 13, line 8; and step 50 in Figure 7). If a respective NAT firewall is not in place between the called user and the internetwork, then the called user's respective global address is transmitted to the calling user so that the calling user can establish a network session for the connection with the called user by transmitting directly to the called user's respective global address (page 12, lines 3-7; and steps 51-52 in Figure 7). If a respective NAT firewall is detected between the called user and the internetwork, then it is detected whether a respective NAT firewall is in place between the calling user and the internetwork (page 12, lines 10-11 and step 53 in Figure 7). If a respective NAT firewall is not in place between the calling user and the internetwork, then the calling user's respective global address is transmitted to the called user (page 12, lines 11-12 and step 54 in Figure 7), and the called user establishes a network session for the connection with the calling user by transmitting directly to the calling user's respective global address (page 12, lines 12-14 and step 55 in Figure 7).

Independent claim 15 recites server software for a real-time, network interconnection service for enabling at least two users to exchange network packets via an internetwork (e.g., Users #1 and #2 in Figures 1 and 6), wherein each user is addressable within the internetwork at a respective global address (page 2, lines 14-21). Some users of the internetwork are connected to the internetwork via a respective network address translation (NAT) firewall (page 3, lines 13-28). The server software is embodied on a computer-readable medium and, when executed by a computer, is operable to maintain a database of registered users, the database including respective global addresses corresponding to the registered users (page 7, lines 18-29). It is further operable to receive a call request from a calling user to establish a connection to exchange network packets with a called user, at least the called user being a registered user (page 8, lines 3-

10 and steps 28-30 in Figure 3). It is further operable to detect whether a respective NAT firewall is in place between the called user and the internetwork (page 12, lines 1-3; page 12, line 25 to page 13, 8; and step 50 in Figure 7). If a respective NAT firewall is not in place between the called user and the internetwork, then the server software is further operable to transmit the called user's respective global address to the calling user (page 12, lines 3-5) so that the calling user can establish a network session for the connection with the called user by transmitting directly to the called user's respective global address (page 12, lines 5-7). If a respective NAT firewall is detected between the called user and the internetwork, then the server software is further operable to detect whether a respective NAT firewall is in place between the calling user and the internetwork (page 12, lines 10-11), and if a respective NAT firewall is not in place between the calling user and the internetwork, then to transmit the calling user's respective global address to the called user (page 12, lines 11-12) and the called user thereafter establishes a network session for the connection with the calling user by transmitting directly to the calling user's respective global address (page 12, lines 12-14).

None of the claims contain either a means plus function or a step plus function element.

GROUND OF REJECTION TO BE REVIEWED

1. Whether claims 1, 5, 8, 12, and 15 are unpatentable under 35 U.S.C. §102(e) as being anticipated by Xu et al (US publication 2002/0122416).

ARGUMENT

Rejection of All Claims under 35 USC 102(e) in View of Xu et al

Claim 1

The application on which Xu '416 is based (Serial No. 10/077,205) was filed on February 15, 2002, which is after the filing date of the present application. The application was a continuation-in-part of earlier applications 09/788,865 (Liu et al publication 2002/0114319A1), 09/819492 (Liu et al publication 2002/0141384A1), and 09/977,438 (Xu et al publication 2002/0114322A1), each of which was filed prior to the present application.

The rejection relies primarily on portions of Xu et al '416 for which there is no corresponding disclosure in the parent applications. The rejection specifically refers to Figure 2b and to paragraphs 0069, 0070, and 0072 which appear only in Xu et al '416. Since the disclosure relied on was new matter in the application that was filed after the present application, it does not constitute available prior art. Since these non-prior art portions of Xu et al '416 are an integral part of the rejections as stated against each pending claim, the rejection is improper.

If the parent applications in fact taught all the features shown in Xu et al '416, then the rejection would have been based on the parents. Instead, the final rejection persists in using the continuation-in-part application because of later teachings it uniquely supplies. The final rejection attempts to justify the reliance on the identified portions of Xu et al '416 by suggesting that these portions have support in the earlier filed parent applications. Assuming, arguendo, that there was some "support" (foreshadowing?) in the parents, no authority is given for the idea that "support" (in the sense of section 112?) in the parent cases is relevant in determining the effective date as published prior art of the new matter portions of the reference. The relied on portions of Xu et al '416 were not present in any publication having a corresponding filing date prior to the filing date of the present application. Since these portions were not effectively published as of the critical date, they do not qualify as prior art under section 102(e). The relied on portions are not "carried over" from the parent applications. Instead, they represent teachings not present before the critical date.

Considering the teachings of the parent applications (i.e., everything which is not new matter in Xu et al '416) which allegedly support an anticipation rejection, it is clear that claimed aspects of the invention are absent. With regard to Liu et al '384, Figures 4 and 5 and paragraphs 0059-0071 relate to the client operation. Specifically, the relied on passages relate to operation of a media session module in client 23, and not to operation of the directory server. Rather than operating at the point of creating a session between the caller and callee as in the present invention, Liu et al '384 attempts to deal with the consequences of a NAT server where a network session already exists. Liu et al '384 fails to disclose any method wherein the called party is the one that actually establishes the network session. Furthermore, Liu et al '384 fails to support the transmitting of caller address information to the callee as suggested in the final rejection. Since there is no teaching of the transmission of the calling user's global address to the called user and the called user subsequently establishing a network session, Liu et al '384 fails to disclose the invention recited in claim 1.

Xu et al '322 relates to use of an intermediary server for communicating between the clients. There is no teaching or suggestion of a method wherein a direct connection bypassing the intermediary server is established by a called party in response to receiving the global address of the calling party. Thus, Xu et al '322 lacks any disclosure to "support" Xu et al '416.

Liu et al '319 likewise fails to provide any teaching or support for the dynamic reversal of the function of establishing a network session from the calling party to the called party. Liu et al '319 neither supports the new matter contained in Xu et al '416 nor discloses the claimed limitations in claim 1.

Claim 5

Claim 5 relates to detecting presence of a NAT firewall during activation and indicating in a database whether the respective NAT firewall is detected for each respective active user or not. The final rejection relies on paragraphs [0062]-[0064] of

Xu et al '416 which describe Figure 3a. These paragraphs and Figure 3a were new matter and did not appear in the parent applications. None of the parent applications show a Local/Global identifier as is shown in the relied upon reference. Since the filing date of Xu et al '416 is after the filing date of the present application, claim 5 is allowable.

Claim 8

Claim 8 recites that the firewall detecting step is comprised of comparing the respective global address and the respective local equipment address, a NAT firewall being detected when the respective global address and the respective local equipment address do not match. The final rejection relies on paragraphs [0064] of Xu et al '416 which describes Figure 3a. This paragraph and Figure 3a were new matter and did not appear in the parent applications. None of the parent applications disclose the recited comparison to detect a NAT firewall. Since the filing date of Xu et al '416 is after the filing date of the present application, claim 5 is allowable.

Claim 12

Independent claim 12 includes the same critical limitations as discussed above regarding claim 1. Therefore, claim 12 is likewise allowable over Xu et al.

Claim 15

Independent claim 15 includes the same critical limitations as discussed above regarding claim 1. Therefore, claim 15 is likewise allowable over Xu et al.

CONCLUSION

The final rejection has failed to establish a case of anticipate of any pending claims. The prior art relied upon in the final rejection neither teaches nor suggests the structure or function of the present invention nor does it provide any teaching which can

obtain the significant advantages which are achieved by the present invention.

Accordingly, the rejection contained in the final rejection dated August 12, 2005, should be reversed.

Respectfully submitted,

A handwritten signature in cursive script, reading "Mark L. Mollon".

Mark L. Mollon

Registration No. 31,123

Attorney for Appellant

Date: November 21, 2006

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CLAIMS APPENDIX

Claims 1, 3-12, 14, 15, and 17 now read as follows:

1. A method of connecting at least two users to exchange network packets via an internetwork, each user being addressable within said internetwork at a respective global address, and wherein some users of said internetwork are connected to said internetwork via a respective network address translation (NAT) firewall, said method comprising the steps of:

maintaining in a central server coupled to said internetwork a database of registered users, said database including respective global addresses corresponding to said registered users;

receiving a call request from a calling user to establish a connection to exchange network packets with a called user, at least said called user being a registered user;

detecting whether a respective NAT firewall is in place between said called user and said internetwork;

if a respective NAT firewall is not in place between said called user and said internetwork, then:

transmitting said called user's respective global address to said calling user;
and

said calling user establishing a network session for said connection with said called user by transmitting to said called user's respective global address;
and

if a respective NAT firewall is in place between said called user and said internetwork, then:

detecting whether a respective NAT firewall is in place between said calling user and said internetwork; and

if a respective NAT firewall is not in place between said calling user and

said internetwork, then:

transmitting said calling user's respective global address to said called user; and

said called user establishing a network session for said connection with said calling user by transmitting to said calling user's respective global address.

3. The method of claim 1 further comprising the steps of:

if a respective NAT firewall is in place both between said called user and said internetwork and between said calling user and said internetwork, then relaying through said central server all packets exchanged between said calling user and said called user during said connection.

4. The method of claim 1 further comprising the step of:

receiving respective activation messages from each of said registered users at times when they become available for connecting to other users.

5. The method of claim 4 wherein a presence of a NAT firewall is detected after receiving said respective activation messages, and wherein said database stores data indicating whether said respective NAT firewall is detected for each respective active user or not.

6. The method of claim 5 wherein said central server transmits periodic messages to each respective active user for which a NAT firewall is detected in order to maintain an open network session.

7. The method of claim 1 wherein said central server transmits periodic messages to each respective active user in order to maintain an open network session with

each respective active user.

8. The method of claim 4 wherein said respective NAT firewalls translate between a respective global address of a respective user and a respective local equipment address of said respective user, wherein each of said activation messages includes a respective local equipment address for a respective user, and wherein said firewall detecting step is comprised of comparing said respective global address and said respective local equipment address, a NAT firewall being detected when said respective global address and said respective local equipment address do not match.

9. The method of claim 1 wherein said respective global addresses each include an IP address and port number.

10. The method of claim 1 wherein said database further includes a respective telephone number associated with each registered user, and wherein said call request identifies said called user by a respective telephone number.

11. The method of claim 10 wherein a telephone call is established over a public switched telephone network between said calling user and said called user simultaneously with said connection for exchanging network packets.

12. A central server coupled to an internetwork providing a real-time, network interconnection service for enabling at least two users to exchange network packets via said internetwork, wherein each user is addressable within said internetwork at a respective global address, and wherein some users of said internetwork are connected to said internetwork via a respective network address translation (NAT) firewall, said central server comprising a programming sequence for:

maintaining a database of registered users, said database including respective

global addresses corresponding to said registered users;

receiving a call request from a calling user to establish a connection to exchange network packets with a called user, at least said called user being a registered user;

detecting whether a respective NAT firewall is in place between said called user and said internetwork;

if a respective NAT firewall is not in place between said called user and said internetwork, then transmitting said called user's respective global address to said calling user so that said calling user can establish a network session for said connection with said called user by transmitting directly to said called user's respective global address; and

if a respective NAT firewall is detected between said called user and said internetwork, then detecting whether a respective NAT firewall is in place between said calling user and said internetwork, and if a respective NAT firewall is not in place between said calling user and said internetwork, then transmitting said calling user's respective global address to said called user and said called user establishing a network session for said connection with said calling user by transmitting directly to said calling user's respective global address.

14. The central server of claim 12 further comprising a programming for:
when a respective NAT firewall is in place both between said called user and said internetwork and between said calling user and said internetwork, then relaying through said central server all packets exchanged between said calling user and said called user during said connection.

15. Server software for a real-time, network interconnection service for enabling at least two users to exchange network packets via an internetwork, wherein each user is addressable within said internetwork at a respective global address, and wherein some users of said internetwork are connected to said internetwork via a

respective network address translation (NAT) firewall, said server software embodied on a computer-readable medium and, when executed by a computer, operable to:

- maintain a database of registered users, said database including respective global addresses corresponding to said registered users;

- receive a call request from a calling user to establish a connection to exchange network packets with a called user, at least said called user being a registered user;

- detect whether a respective NAT firewall is in place between said called user and said internetwork;

- if a respective NAT firewall is not in place between said called user and said internetwork, then transmit said called user's respective global address to said calling user so that said calling user can establish a network session for said connection with said called user by transmitting directly to said called user's respective global address;

- if a respective NAT firewall is detected between said called user and said internetwork, then to detect whether a respective NAT firewall is in place between said calling user and said internetwork, and if a respective NAT firewall is not in place between said calling user and said internetwork, then to transmit said calling user's respective global address to said called user and said called user thereafter establishing a network session for said connection with said calling user by transmitting directly to said calling user's respective global address.

17. The server software of claim 15 further operable to:

- when a respective NAT firewall is in place both between said called user and said internetwork and between said calling user and said internetwork, then to relay through said server all packets exchanged between said calling user and said called user during said connection.

EVIDENCE APPENDIX

No evidence has been submitted under 37 CFR §§1.130, §§1.131, §§1.132, or otherwise.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings and no corresponding decisions rendered.